

# Push-Pull Technology



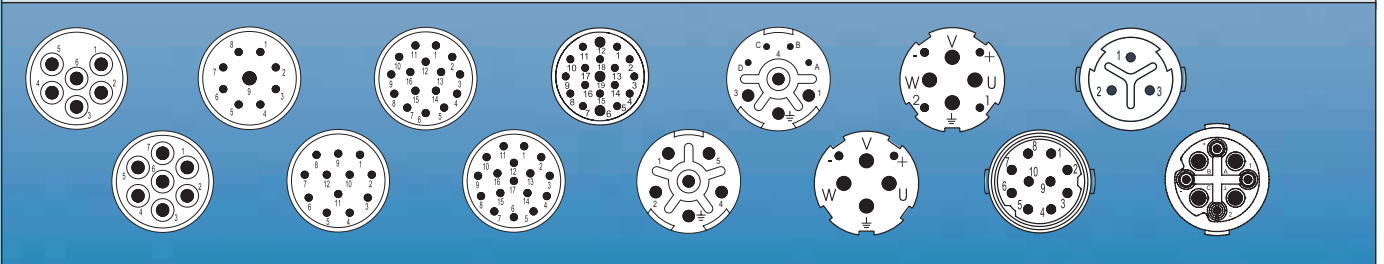
Housings

page 104



Inserts

page 22, 35, 56, 94, 110



Accessories

page 26, 41, 63, 95, 115



## Push-Pull Connectors

Mechanical Data	Materials and Technical Data
Housing	Copper-Zinc alloy Die Casting Aluminium alloy
Housing surface	Nickel plated brass (standard), other surface upon request
Inserts (for contacts)	Thermoplastic Polyamid PA 6 (Nylon 6/6), PBT Fire protection class V-0
Contacts	Brass Alloy
Contact surface at point of contact	Nickel and gold plated (0,25 µm Au)
Minimum mating cycles	> 250
Seals / O-Rings	Buna-N standard optional Viton® (Viton is a registered trademark of DuPont)
Temperature range	-40° C – 125° C (-40 °F – 257 °F)
Type of contacts M 16	Crimp, dip-solder (PCB)
Type of contacts signal M23	Crimp, solder, dip-solder (PCB)
Type of contacts power M23, M40	Crimp
Protection	IP 67 / IP 69 K per EN 60 529 (connected), NEMA 4x

## Additional Information

### Electrical data see standard program

Connectors M 16	page 17
Signal Connectors M23 RJ45	page 37
Signal Connectors M23	page 45
Power Connectors M23	page 87
Power Connectors Size 1,5	page 109

### Inserts and contacts see standard program

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We do not recommend disconnecting or connecting HUMMEL Connectors under load.

## Characteristics

### HUMMEL Push-Pull Connectors guarantee:

- Quick connecting cycle
- EMC compatible connection due to radially locked metal ring
- High protection rate
- Easy connection / disconnection even under tight space conditions
- Best reliability with optional safety ring



Standard delivery of M40 (size 1.5) Power Connector include Contact Insert

## M 16 Signal Connectors / Push-Pull

Straight Connector, Female Thread	Cable-Ø	Part Number
	2 – 7 mm (.08 – .28") .....7.813.300.000 4 – 9 mm (.16 – .35") .....7.813.400.000	
	<b>Optional:</b> Safety ring	
Contacts and inserts page 22 • Assembly instructions page 29		

Straight Connector, Male Thread	Cable-Ø	Part Number
	2 – 7 mm (.08 – .28") .....7.823.300.000 4 – 9 mm (.16 – .35") .....7.823.400.000	
	Contacts and inserts page 22 • Assembly instructions page 29	

Panel Connector, Male Thread	Cable-Ø	Part Number
	4 holes Ø 2,7 mm (.11") .....7.840.300.000	
	Contacts and inserts page 22 • Assembly instructions page 32	

Panel Connector, Male Thread	Cable-Ø	Part Number
	<b>Rear mounting, single hole mounted</b> Including jam nut .....7.850.300.000	
	Contacts and inserts page 22 • Assembly instructions page 32	

## Signal Connectors M 23/ Push-Pull


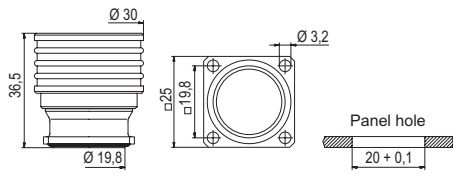
Cable-Ø	Part Number	Straight Connector, Female Thread	
3 – 7 mm (.12 – .28")	7.150.300.000		
5 – 10 mm (.20 – .39")	7.150.400.000		
7 – 12 mm (.24 – .47")	7.150.500.000		
10 – 14 mm (.39 – .55")	7.150.600.000		
<b>Optional:</b> Safety ring			
Contacts and inserts page 56 • Assembly instructions page 67			


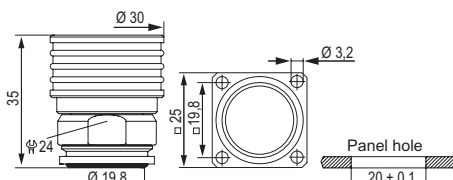
Cable-Ø	Part Number	Right Angle Connector, Female Thread	
3 – 7 mm (.12 – .28")	7.304.300.000		
5 – 10 mm (.20 – .39")	7.304.400.000		
7 – 12 mm (.24 – .47")	7.304.500.000		
10 – 14 mm (.39 – .55")	7.304.600.000		
<b>Optional:</b> Safety ring			
Contacts and inserts page 56 • Assembly instructions page 68			


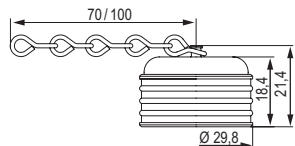
Cable-Ø	Part Number	Right Angle Connector, Female Thread, EMC	
3 – 7 mm (.12 – .28")	7.305.300.000		
5 – 10 mm (.20 – .39")	7.305.400.000		
7 – 12 mm (.24 – .47")	7.305.500.000		
10 – 14 mm (.39 – .55")	7.305.600.000		
<b>Optional:</b> Safety ring			
Contacts and inserts page 56 • Assembly instructions page 68			

Signal Connectors M 23 Push-Pull fit to all housings with male thread of the standard series HUMMEL Signal Connectors M 23

## Signal Connectors M23 / Push-Pull

Panel Connector, Female Thread, with knurled Nut		Type	Part Number
		<b>Without coding option</b>	4 holes $\varnothing$ 3,2 mm (.13") .....7.440.500.000
		<b>Optional:</b> Safety ring	
		Contacts and inserts page 56 • Assembly instructions page 70	

Panel Connector, Female Thread, with knurled Nut		Type	Part Number
		<b>With coding option</b>	4 holes $\varnothing$ 3,2 mm (.13") .....7.448.500.000
		<b>Optional:</b> Safety ring	
		Contacts and inserts page 56 • Assembly instructions page 70	

Protective Caps, Push-Pull Signal		Type	Part Number
		<b>For signal connectors with male thread</b>	.....7.010.950.102
		<b>with chain 100 mm</b>	.....7.010.95S.102

See pages 63 for additional accessories and tools

Signal Connectors M23 Push-Pull fit to all housings with male thread of the standard series HUMMEL Signal Connectors M23

## Signal Connectors M 23 / Push-Pull


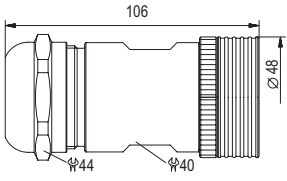

Cable-Ø	Part Number	Straight Connector, Female Thread	
7 – 12 mm (.24 – .47")	.....7.555.500.000		
11 – 17 mm (.43 – .67")	.....7.555.600.000		
<b>Optional:</b> Safety ring			
Contacts and inserts page 94 • Assembly instructions page 100			


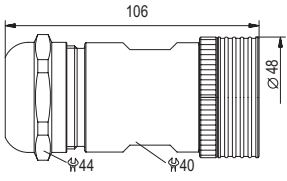
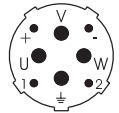
Cable-Ø	Part Number	Right Angle Connector, Female Thread <sup>1)</sup>	
7 – 12 mm (.24 – .47")	.....7.575.500.000		
10 – 14 mm (.39 – .55")	.....7.575.600.000		
<b>Optional:</b> Safety ring			
Contacts and inserts page 94 • Assembly instructions page 100			

<sup>1)</sup> Under development

Power Connectors M23 Push-Pull fit to all housings with male thread of the standard series HUMMEL Power Connectors M23

## Power Connectors Size 1,5 / Push-Pull

Straight Connector, Female Thread		Cable-Ø	Part Number
			<b>2 + 3 + PE, insert for sockets</b> 13 – 18 mm (.52 – .71").....7.715.623.000 17 – 24 mm (.67 – .95").....7.715.723.000 21 – 28 mm (.83 – 1.10")...7.715.823.000
			<b>Optional:</b> Safety ring  Contacts page 114 • Assembly instructions page 122

Straight Connector, Female Thread		Cable-Ø	Part Number
			<b>4 + 3 + PE, insert for sockets</b> 13 – 18 mm (.52 – .71").....7.715.643.000 17 – 24 mm (.67 – .95").....7.715.743.000 21 – 28 mm (.83 – 1.10")...7.715.843.000
			<b>Optional:</b> Safety ring  Contacts page 114 • Assembly instructions page 122

## Power Connectors Size 1,5 / Push-Pull

Cable-Ø	Part Number	Straight Connector, Male Thread	
<b>2+3+PE, insert for pins</b>			
13 – 18 mm (.52 – .71")	.....7.725.623.000		
17 – 24 mm (.67 – .95")	.....7.725.723.000		
21 – 28 mm (.83 – 1.10")	...7.725.823.000		
Contacts page 114 • Assembly instructions page 122			

Cable-Ø	Part Number	Straight Connector, Male Thread	
<b>4+3+PE, insert for pins</b>			
13 – 18 mm (.52 – .71")	.....7.725.643.000		
17 – 24 mm (.67 – .95")	.....7.725.743.000		
21 – 28 mm (.83 – 1.10")	...7.725.843.000		
Contacts page 114 • Assembly instructions page 122			

Panel Connector	Type	Part Number
	<p><b>2 + 3 + PE, insert for pins</b> 4 holes <math>\varnothing</math> 4,5 mm (.18") .....7.740.523.000</p>	
<p>Contacts page 114 • Assembly instructions page 121</p>		

Panel Connector	Type	Part Number
	<p><b>4 + 3 + PE, insert for pins</b> 4 holes <math>\varnothing</math> 4,5 mm (.18") .....7.740.543.000</p>	
<p>Contacts page 114 • Assembly instructions page 121</p>		